

Appl. 10/575,569
Amendment after Allowance, **June 10, 2011**

Atty. Docket No. 305S-100110US
Client Reference No.: SF03-013-2

Amendments to the Claims:

If these amendments are accepted, this listing of claims will replace all prior versions, and listings, of claims in the application. These amendments introduce no new matter and support for the amendment is replete throughout the specification and claims as originally filed. These amendments are made without prejudice and are not to be construed as abandonment of the previously claimed subject matter, or agreement with any objection or rejection of record.

Listing of Claims:

1-9 CANCELLED

10. (PREVIOUSLY PRESENTED): A method of repairing a damaged nerve in a living organism comprising:

- selecting one or more axons in said damaged nerve;
- harvesting a donor axon segment;
- positioning said donor axon segment at a severed location of a selected axon by applying a dielectrophoresis signal in proximity of one or more of said donor axon or said selected axon; and
- inducing fusion of said donor axon segment by applying an electric signal in proximity of one or more of said donor axon or said selected axon

11. (ORIGINAL): The method of claim **10** further comprising:

- cutting one or more ends of said donor axon and/or said selected axon.

12. CANCELLED

13. CANCELLED

14. (ORIGINAL): The method of claim **10** further comprising:

- digesting one or more nerve portions to allow manipulation of individual axons.

15. (ORIGINAL): The method of claim **10** further comprising:

- using a MEMS axon surgical platform enabling precise manipulation of axons of less than one and up to a few microns in diameter.

16. (ORIGINAL): The method of claim **10** wherein said living animal comprises a human.